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RESEARCH CENTER

CHARGE NO. & TITLE: 2100 - NEW PRODUCT DEVELOPMENT

TYPE REPORT: ☐ ANNUAL ☐ SEMIANNUAL ☐ COMPLETION ☒ SPECIAL

DATE: April 14, 1977 PERIOD COVERED:

REPORT TITLE: V-4589

CONTROL: 85 MM KENT GOLDEN LIGHTS (IBM CODE D7KR)

versus

EXPERIMENTAL: 85 MM 5 MG WHITE TIPPED CIGARETTE
WITH BLEND D7CFW (IBM CODE D7KS)

WRITTEN BY Faye Reynolds

APPROVED BY H. G. Daniel M. E. Johnston

DISTRIBUTION:

R. Seligman
F. Resnik
W. Gannon
R. Thomson
F. Daylor
J. Osullov
H. Daniel
L. Meyer

H. Spielberg
M. Johnston
P. Gauvin (Requester)
S.E.F. File (Faye Reynolds)
Indexer
Day File (2)
Central File (2)

KEYWORDS: 85 mm Kent Golden Lights
85 mm 5 mg white tipped cigarette
blend D7CFW

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Summary of Va. Panel Test V-4589

The Control 85 mm Kent Golden Lights was found:

- (1) to have more total taste by:
 - a. low delivery smokers ($p < .001$)
 - b. regular filter smokers ($p < .0005$)
 - c. combined panel ($p < .0005$)
- (2) to be more tobacco-like in flavor by:
 - a. low delivery smokers ($p < .0005$)
 - b. regular filter smokers ($p < .0005$)
 - c. combined panel ($p < .0005$)
- (3) to have the better aftertaste by:
 - a. regular filter smokers ($p < .005$)
 - b. combined panel ($p < .005$)
- (4) to be the preferred cigarette by:
 - a. low delivery smokers ($p < .10$)
 - b. regular filter smokers ($p < .0005$)
 - c. combined panel ($p < .0005$)
- (5) to have a higher mean rating on the nine-point overall acceptability scale by:
 - a. low delivery smokers ($p < .02$)
 - b. regular filter smokers ($p < .001$)
 - c. smokers who have switched cigarette types ($p < .01$)
 - d. combined panel ($p < .001$)
- (6) to have a higher mean rating on the seven-point purchase probability scale by:
 - a. low delivery smokers ($p < .02$)
 - b. regular filter smokers ($p < .001$)
 - c. smokers who have switched cigarette types ($p < .10$)
 - d. combined panel ($p < .001$)

The Experimental 85 mm 5 mg white tipped cigarette with blend D7CFW was found:

- (1) to have an off-taste by:
 - a. low delivery smokers ($p < .005$)
 - b. regular filter smokers ($p < .0005$)
 - c. combined panel ($p < .0005$)

Purpose: To evaluate a 5 mg white tipped cigarette with blend D7CFW.

Procedure: Paired-comparison. This test was somewhat different from our usual format. The panelist on this test received a "fact sheet" with their cigarettes. The fact sheet explained that (5) packs of the cigarettes were identified as a leading cigarette brand and the other (5) packs of cigarettes were products which demand approximately (5) milligrams of tar.

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Panelists: A panel of 300 smokers recruited from the Virginia Panel were used for this test. The panel consisted of a cross-section of 150 (85 mm) low delivery smokers and a cross-section of 150 (85 mm) regular filter smokers. Panelists who have switched to another cigarette type (not in the proposed panel for this test) were tabulated separately.

Cigarettes: Produced and packaged at R&D in Product Opinion Laboratory packs. Presentation was balanced using color codes.

	<u>Red</u>	<u>Black</u>
<u>Control:</u>		
Kent Golden Lights 85mm	C8	Q6
(IBM Code D7KR)		
<u>Experimental:</u>		
85mm 5mg white tipped	Q6	C8
cigarette with blend		
D7CFW (IBM Code D7KS)		

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KEY:

LDS - Cross-section of 85mm low delivery smokers	N=105
RFS - Cross-section of 85mm regular filter smokers	N=109
TSW - Smokers who have switched cigarette types	N= 11
CP - Combined Panel	N 225

Which cigarette:	Control D7KR	Experimental D7KS	No Difference	Probability
Has more total taste?				
LDS	64	30	11	<.001
RFS	75	17	17	<.0005
TSW	6	4	1	NS
CP	145	51	29	<.0005
Has an off-taste?				
LDS	16	46	43	<.005
RFS	9	47	53	<.0005
TSW	2	6	3	NS
CP	27	99	99	<.0005
Is harsher?				
LDS	35	31	39	NS
RFS	30	23	56	NS
TSW	2	3	6	NS
CP	67	57	101	NS
Is more spicy?				
LDS	29	27	49	NS
RFS	26	24	59	NS
TSW	3	0	8	NS
CP	58	51	116	NS
Is sweeter tasting?				
LDS	34	44	27	NS
RFS	36	29	44	NS
TSW	5	3	3	NS
CP	75	76	74	NS
Is more bitter?				
LDS	31	25	49	NS
RFS	11	21	77	NS
TSW	1	1	9	NS
CP	43	47	135	NS
Is more tobacco-like in flavor?				
LDS	63	24	18	<.0005
RFS	69	21	19	<.0005
TSW	7	3	1	NS
CP	139	48	38	<.0005
Has the better aftertaste?				
LDS	44	34	27	NS
RFS	54	20	35	<.005
TSW	7	3	1	NS
CP	105	57	63	<.005

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Which do you prefer?	<u>Control D7KR</u>	<u>Experimental D7KS</u>	<u>Probability</u>
LDS	60	43	<.10
RFS	83	24	<.0005
TSW	7	3	NS
CP	150	70	<.0005

Nine-point overall acceptability scale
(1 = dislike extremely to 9 = like extremely)

	<u>Mean</u>			
	<u>Control D7KR</u>	<u>Experimental D7KS</u>	<u>t-scores</u>	<u>Probability</u>
LDS	6.33	5.65	2.44	<.02
RFS	5.37	4.19	5.05	<.001
TSW	6.73	4.00	3.75	<.01
CP	5.89	4.86	5.76	<.001

Seven-point purchase probability scale
(1 = definitely not to 7 = definitely)

	<u>Mean</u>			
	<u>Control D7KR</u>	<u>Experimental D7KS</u>	<u>t-scores</u>	<u>Probability</u>
LDS	4.66	4.05	2.38	<.02
RFS	3.67	2.57	5.28	<.001
TSW	4.55	2.82	2.10	<.10
CP	4.18	3.28	5.55	<.001

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Comparison of Brands Used for Mailout
versus Brands of Test Respondents

	<u>Mailout (%)*</u>	<u>Returned (%)</u>
<u>Low delivery brands</u>		
Kent	14.7	10.7
Parliament	6.7	2.0
Vantage	12.7	6.7
True	4.9	2.7
Doral	4.0	2.7
Carlton	6.9	4.7
Kent Golden Lights	6.7	6.7
Merit	6.7	4.0
Now	2.7	2.7
Lark	4.0	2.0
Tareyton	10.0	8.0
B&H Multifilter	2.0	2.0
Marlboro Lights	8.0	5.3
Winston Lights	8.0	8.0
All others	4.0	2.1
<u>Regular filter brands</u>		
Marlboro	41.3	28.0
Winston	36.7	30.7
L&M	4.0	2.7
Viceroy	6.0	2.7
Raleigh	4.0	2.7
Camel	3.3	2.7
Old Gold	1.3	1.3
All others	3.3	2.0
Type Switchers**		

*Percentage based on share of market held by each individual brand
Source: 1976 Maxwell Report: Third Quarter

**Includes anything other than an 85mm Low delivery cigarette or an 85mm Regular filter cigarette.

1000365373

TO: Mary Sanderford
FROM: J. E. Wickham
SUBJECT: Virginia Panel V-4589

DATE: March 16, 1955

Submitted By: P. Gauvin

D7KR = Red C8 and Black Q6 = Kent Golden Lights 85
Cigarettes
D7KS = Red Q6 and Black C8 = 85 mm 5 mg Candidate,
D7CFW Blend with White Tipping

The 85 mm 5 mg candidate, D7CFW blend with white tipping (D7KS), was different from the Kent Golden Lights 85 cigarettes (D7KR) in all characteristics tested except puff count, static burning time, cigarette length, circumference, type paper additive, and tipping paper length.

The Kent Golden Lights 85 cigarettes will be identified with "PR" sheet to the panelists.

	Kent Golden Lights 85	85 mm 5 mg Candidate D7CFW Blend With White Tipping
IBM Code	D7KR	D7KS
<u>Smoke</u>		
Butt Length, mm	35	35
FTC Tar, mg/cigt.	7.6	4.3
Nicotine, mg/cigt.	0.69	0.40
Puffs/cigt.	7.6	8.3
Filtration Eff., %	82	64
<u>Cigarette</u>		
Total RTD, in. of H ₂ O	3.7	4.2
Static Burn. Time, min.	6.4	7.2
Length, mm	84.6	84.3
Circumference, mm	24.9	25.0
<u>Paper</u>		
Additive, type	Cit.	Cit.
Porosity, sec.	19	11
<u>Filter</u>		
RTD, in. of H ₂ O	2.9	3.8
Length, mm	24.9	27.0
Weight, g	0.16	0.19
Tipping paper length, mm	32	32
Dilution, %	38	53
<u>Filler</u>		
Total alkaloids, %	1.38	1.65
Total reducing sugars, %	6.8	5.3
Wt. of tob., g	0.665	0.706
Density, g/cc	0.226	0.248

JEW:gnm

cc: Dr. R. T. Seligman
Mr. F. E. Resnik
Mr. T. T. Goodale
Mr. R. N. Thomson
Dr. W. E. Cannon
Mr. J. S. Osmalov
Mr. F. U. Davison
Mr. H. G. Daniel
Mr. L. E. Meyer
Mr. H. L. Spielberg
Mr. P. N. Gauvin
Analytical File

File Fick

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PHILIP MORRIS U. S. A.
INTER-OFFICE CORRESPONDENCE
RICHMOND, VIRGINIA

To: . Jerry Osmalov
From: . Mary Sanderford
Subject: . Virginia Panel Test V-4589

Date: February 11, 1977

Charge No. 2100

Test Requester: Paul Gauvin

Approved by:

L. Meyer
Manager

Panel Makeup: 150 cross section 85mm health filter smokers
150 cross section 85mm regular filter smokers

Presentation: Paired Comparison

Quantity:

Control

Red	C8	750 packs
Black	Q6	750 packs

Experimental

Red	Q6	750 packs
Black	C8	750 packs

Cigarette Descriptions:

Control - Kent Golden Lights, Identified with "PR" sheet

Experimental - 5mg Candidate - Use X6D7CFW Blend,
White Tipping. See P. Gauvin or
L. Filosa for remaining specs.

fs

cc: R. Seligman
W. Gannon
R. Thomson
F. Daylor
L. Meyer

J. Wickham
H. Daniel
H. Spielberg
E. Chambers
C. Kounnas

J. Whitman
M. Johnston
J. Warren (3)
B. Rainey
P. Gauvin (Requester)
L. Filosa

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(Make address changes on this label.)

PRODUCT OPINION LABORATORY
P.O. Box 26563 - Richmond, Va. 23261
Phone: (804) 271-3368

RETURN BALLOT BY

V-4589

R

Dear Panelist:

With this ballot I am sending you ten packs of cigarettes coded as follows:
C8 - 5 packs and Q6 - 5 packs. Remember, you do not have to smoke all of
the cigarettes - only as many as you need to complete the questionnaire.

When this questionnaire is completely filled out, please return it to me in
the enclosed postage-paid envelope. Thank you very much - your cooperation in
this test is most helpful.

D. F. Reynolds
Panel Leader

PLEASE READ ENTIRE BALLOT BEFORE STARTING TEST

First smoke some of the cigarettes marked C8 and then the cigarettes
marked Q6. Then compare the two cigarettes with each other and complete the
questions below.

Which cigarette:

	<u>C8</u>	<u>Q6</u>	<u>No</u> <u>Difference</u>
1. has more total taste?	_____	_____	_____
2. has an off-taste?	_____	_____	_____
3. is harsher?	_____	_____	_____
4. is more spicy?	_____	_____	_____
5. is sweeter-tasting?	_____	_____	_____
6. is more bitter?	_____	_____	_____
7. is more tobacco-like in flavor?	_____	_____	_____
8. has the better aftertaste?	_____	_____	_____

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(Make address changes on this label.)

PRODUCT OPENTON LABORATORY
P.O. Box 26563 - Richmond, Va. 23261
Phone: (804) 271-3368

RETURN BALLOT BY

V-4589

R

Dear Panelist:

With this ballot I am sending you ten packs of cigarettes coded as follows:
C8 - 5 packs and Q6 - 5 packs. Remember, you do not have to smoke all of
the cigarettes - only as many as you need to complete the questionnaire.

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the enclosed postage-paid envelope. Thank you very much - your cooperation in
this test is most helpful.

D. F. Reynolds
Panel Leader

PLEASE READ ENTIRE BALLOT BEFORE STARTING TEST

First smoke some of the cigarettes marked C8 and then the cigarettes
marked Q6. Then compare the two cigarettes with each other and complete the
questions below.

Which cigarette:	C8	Q6	No Difference
1. has more total taste?	_____	_____	_____
2. has an off-taste?	_____	_____	_____
3. is harsher?	_____	_____	_____
4. is more spicy?	_____	_____	_____
5. is sweeter-tasting?	_____	_____	_____
6. is more bitter?	_____	_____	_____
7. is more tobacco-like in flavor?	_____	_____	_____
8. has the better aftertaste?	_____	_____	_____
9. Which do you prefer? (choose one)	_____	_____	_____

- 10a. Check the box that best describes how you feel about the overall acceptability
of the cigarette coded C8.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
dislike extremely	dislike very much	dislike moderately	dislike slightly	neither like nor dislike	like slightly	like moderately	like very much	like extremely

- 10b. Check the box that best describes how you feel about the overall acceptability
of the cigarette coded Q6.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
dislike extremely	dislike very much	dislike moderately	dislike slightly	neither like nor dislike	like slightly	like moderately	like very much	like extremely

- 11a. Would you buy the C8 cigarette if it were available now?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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definitely probably possibly uncertain possibly probably definitely
not not not

11b. Would you buy the Q6 cigarette if it were available now?

--	--	--	--	--	--	--

definitely probably possibly uncertain possibly probably definitely
not not not

What brand do you usually smoke? (Please be specific, e.g.,
Marlboro Lights, Winston Lights, Kent Lights, etc.)

ANSWER:

Is it filtered? ☒ Yes ☐ No (check one)
Is it menthol? ☒ Yes ☐ No (check one)
Is it in a pack? ☒ Yes ☐ No (check one)
If in a pack, how many cigarettes per pack?

How many cigarettes do you smoke per day?

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